CLAIMS

1. An apparatus for performing power fault analysis in a computer system, the computer system having a power system that includes a control device, wherein the power system receives utility power and applies power to at least one electrical component of the computer system, the apparatus comprising:

an information circuit associated with the power system, the information circuit having a non-volatile memory field for storing a state variable,

the state variable assuming a first state when the computer system is powered on and operating, wherein the state variable stays in the first state until the computer system is powered off in response to a power-off request,

the state variable assuming a second state when the computer system is powered off in response to a power-off request, wherein the state variable stays in the second state until the computer system is powered on and operating,

the state variable being read by the control device.

2. The apparatus as recited in claim 1, wherein the information circuit is a vital product data (VPD) circuit.

3. The apparatus as recited in claim 1, wherein the information circuit includes a memory selected from the group consisting of a programmable read only memory (PROM), non volatile random access memory (NVRAM), complementary metal oxide semiconductor (CMOS) memory and flash memory.

4. The apparatus as recited in claim 1, wherein at least a portion of the control device is powered down when the utility power is removed from the power system due to a utility power disturbance and powered up when the utility power is restored to the power system, and wherein the state variable is read upon powering up the portion of the control device.

5. The apparatus as recited in claim 4, wherein the control device operates in a standby mode when the computer system is powered off.

6. The apparatus as recited in claim 1, wherein the computer system has a CEC frame and a I/O frame each having one of the power systems, and wherein the control device of the power system in the CEC frame in coupled to the control device of the power system in the I/O frame by a system power control network (SPCN).

7. The apparatus as recited in claim 1, wherein the control device maintains a local error log that includes an entry based on the state variable accessed from the information circuit.

8. The apparatus as recited in claim 6, wherein the control device of the power system in the CEC frame maintains a local error log that includes an entry based on the state variable accessed from the information circuit associated therewith, and wherein the control device of the power system in the I/O frame maintains a local error log that includes an entry based on the state variable accessed from the information circuit associated therewith.

9. The apparatus as recited in claim 7, wherein the computer system has an operating system, and wherein the operating system accesses the local error log and records an entry in a system error log based on the contents of the local error log.

10. The apparatus as recited in claim 8, wherein the computer system has an operating system, and wherein the operating system accesses the local error log maintained in the CEC frame and records an entry in a system error log based on the contents thereof, and wherein the operating system accesses the local error log maintained in the I/O frame and records an entry in the system error log based on the contents thereof.

11. The apparatus as recited in claim 9, wherein the entry in the system error log is time stamped.

12. The apparatus as recited in claim 10, wherein the entries in the system error log are time stamped.

13. A computer-implemented method of performing power fault analysis in a computer system, the computer system having a power system that includes a control device, wherein the power system receives utility power and applies power to at least one electrical component of the computer system, the computer-implemented method comprising the steps of:

storing a state variable in a non-volatile memory field of an information circuit associated with the power system,

the state variable assuming a first state when the computer system is powered on and operating, wherein the state variable stays in the first state until the computer system is powered off in response to a power-off request,

the state variable assuming a second state when the computer system is powered off in response to a power-off request, wherein the state variable stays in the second state until the computer system is powered on and operating; and

reading the state variable from the information circuit with the control device.

14. The computer-implemented method as recited in claim 13, wherein at least a portion of the control device is powered down when the utility power is removed from the power system due to a utility power disturbance and powered up when the utility power is restored to the power system, and wherein the reading step is performed upon powering up the portion of the control device.

15. The computer-implemented method as recited in claim 14, wherein the control device operates in a standby mode when the computer system is powered off.

16. The computer-implemented method as recited in claim 13, wherein the computer system has a CEC frame and a I/O frame each having one of the power systems, and wherein the control device of the power system in the CEC frame in coupled to the control device of the power system in the I/O frame by a system power control network (SPCN), the computer-implemented method further comprising the steps of:

maintaining in the control device in the CEC frame a local error log that includes an entry based on the state variable assessed from the information circuit associated therewith;

maintaining in the control device in the I/O frame a local error log that includes an entry based on the state variable assessed from the information circuit associated therewith.

17. The computer-implemented method as recited in claim 13, further comprising the step of:

maintaining in the control device a local error log that includes an entry based on the state variable assessed from the information circuit.

18. The computer-implemented method as recited in claim 17, wherein the computer system has an operating system, the computer-implemented method further comprising the steps of:

the operating system accessing the local error log;

the operating system recording an entry in a system error log based on the contents of the local error log.

19. The computer-implemented method as recited in claim 16, wherein the computer system has an operating system, the computer-implemented method further comprising the steps of:

the operating system accessing the local error log maintained in the CEC frame;

the operating system recording an entry in a system error log based on the contents of the local error log maintained in the CEC frame;

the operating system accessing the local error log maintained in the I/O frame;

the operating system recording an entry in a system error log based on the contents of the local error log maintained in the I/O frame.

20. The computer-implemented method as recited in claim 18, wherein the recording step includes the step of time stamping the entry in the system error log.

21. The computer-implemented method as recited in claim 19, wherein the recording step includes the step of time stamping the entries in the system error log.

22. A program product for performing power fault analysis in a computer system, the computer system having a power system that includes a control device, wherein the power system receives utility power and applies power to at least one electrical component of the computer system, the program product comprising:

a signal bearing media; and

a program recorded on the signal bearing media, the program being capable of executing on a processor and containing a variable, the variable being in a first state when the computer system is powered on and operating, wherein the variable stays in the first state until the computer system is powered off in response to a power-off request, the variable being in a second state when the computer system is powered off in response to a power-off request, wherein the variable stays in the second state until the computer system is powered on and operating, the program storing the variable in a non-volatile memory field of an information circuit associated with the power system.

23. The program product as recited in claim 22, wherein at least a portion of the control device is powered down when the utility power is removed from the power system due to a utility power disturbance and powered up when the utility power is restored to the power system, and wherein the program reads the variable stored in the non-volatile memory field of the information circuit when the control device powers up.

24. The program product as recited in claim 23, wherein the control device operates in a standby mode when the computer system is powered off.

25. The program product as recited in claim 22, wherein the signal bearing media is recordable media.

26. The program product as recited in claim 22, wherein the signal bearing media is transmission type media.